

REMARKS/ARGUMENTS

The Applicant has carefully considered this application in connection with the Examiner's Action and respectfully requests reconsideration of this application in view of the following remarks.

The Applicant originally submitted Claims 1-33 in the application. In a previous response to an Official Action, the Applicant canceled Claim 33 without prejudice or disclaimer. Presently, the Applicant has amended Claims 1, 7, 12, 17, 21 and 27 and has neither canceled nor added any other claims. Accordingly, Claims 1-32 are currently pending in the application.

I. Rejection of Claims 7-11, 12-16 and 17-20 under 35 U.S.C. §112

The Examiner has rejected Claims 7-11, 12-16 and 17-20 under 35 U.S.C. §112, second paragraph, as being indefinite. While the Applicants disagree with the Examiner, amendments made to Claims 1, 7, 12, and 17 for other reasons, remove the reference to the gate sidewall spacer that created the antecedent basis problem. As such, the Applicant requests that the Examiner kindly remove the §112 rejection with respect to Claims 7-11, 12-16 and 17-20.

II. Rejection of Claims 1-5, 7-10, 12-14, 16, 17-19, and 21-25 under 35 U.S.C. §102

The Examiner has rejected Claims 1-5, 7-10, 12-14, 16, 17-19, and 21-25 under 35 U.S.C. §102(b) as being clearly anticipated by U.S. Patent No. 5,043,778 to Teng, et al. (Teng). Independent Claims 1, 7, 12, 17, 21, and 27 recite that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench. Teng fails to disclose such an element. Teng, as shown in the completed device illustrated in Fig. 7, teaches that its so called isolation region comprises a first portion 36 and a second portion 20. While the first portion 36 may

be located within the trench, the second portion 20 is not located over the trench. Because the second portion 20 was formed prior to the formation of the trench, it can not be located over the trench as required by the claims of the present invention.

Therefore, Teng does not disclose each and every element of independent Claims 1, 7, 12, 17, 21 and 27, and as such, is not an anticipating reference. Because Claims 2-5, 8-10, 13-14, 16, 18-19, and 21-25 are dependent upon Claims 1, 7, 12, 17, 21 and 27, Teng also cannot be an anticipating reference for Claims 2-5, 8-10, 13-14, 16, 18-19, and 21-25. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to these Claims.

III. Rejection of Claims 6, 11, 15 and 26 under 35 U.S.C. §103

The Examiner has rejected Claims 6, 11, 15 and 26 under 35 U.S.C. §103(a) as being obvious over Teng in view of United States Patent Application No. 2002/0142552 A1 to Wu (Wu). As recited above, Teng fails to disclose every element recited in independent Claims 1, 7, 12, 17, 21 and 27. Namely, Teng fails to disclose the recited element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench.

Similarly, it is the position of the Applicant that Teng also fails to suggest the element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench. Teng fails to suggest such an element because Teng forms its second portion 20, which in reality is a field oxide, prior to the formation of the trench. As the sidewalls of the trench of Teng are vertical, there is no feasible way for the second portion to be located over the trench. Given the structure illustrated and described in Teng, as well as the method taught to manufacture such a device, one skilled in the art would also not be motivated to form the trench under the second

portion, unless that person was using the present invention as a blueprint. Accordingly, Teng also fails to teach or suggest such an element.

The Examiner is using the Wu reference for the sole proposition that the isolation region may extend through the transistor tub (“well”). Notwithstanding the merits of the Examiner’s proposition, Wu also fails to teach or suggest the element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench. A teaching or suggestion that the isolation region may extend through the transistor tub (“well”) is dissimilar to a teaching or suggestion that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench.

Therefore, the combination of Teng and Wu fails to teach or suggest each and every element of independent Claims 1, 7, 12, 17, 21 and 27, and as such, it fails to establish a *prima facie* case of obviousness with respect to independent Claims 1, 7, 12, 17, 21 and 27, and any claims dependent therefrom.

In view of the foregoing amendments and remarks, the cited references do not support the Examiner's rejection of Claims 6, 11, 15 and 26 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner withdraw the rejection.

IV. Rejection of Claims 27-31 under 35 U.S.C. §103

The Examiner has rejected Claims 27-31 under 35 U.S.C. §103(a) as being obvious over Teng in view of the Applicant's admitted prior art (APA). As recited above, Teng fails to teach or suggest every element recited in independent Claims 1, 7, 12, 17, 21 and 27. Namely, Teng fails to

teach or suggest the recited element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench.

Similarly, the APA fails to teach or suggest such an element. The Examiner is using the APA for the sole proposition that interconnects may be used to connect the claimed device to various other active and passive devices. Notwithstanding the merits of the Examiner's proposition, the APA also fails to teach or suggest the element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench. A teaching or suggestion of an interconnect connecting various devices is dissimilar to a teaching or suggestion that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench.

Therefore, the combination of Teng and the APA fails to teach or suggest each and every element of independent Claims 1, 7, 12, 17, 21 and 27, and as such, it fails to establish a *prima facie* case of obviousness with respect to independent Claims 1, 7, 12, 17, 21 and 27, and any claims dependent therefrom.

In view of the foregoing amendments and remarks, the cited references do not support the Examiner's rejection of Claims 27-31 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner withdraw the rejection.

V. Rejection of Claim 32 under 35 U.S.C. §103

The Examiner has rejected Claim 32 under 35 U.S.C. §103(a) as being obvious over Teng in view of the APA and Wu. As established above, each of the references Teng, the APA and Wu fails to teach or suggest the element that the isolation region includes a first portion formed in the trench and a second post portion formed over the trench. As each of the references individually fails to teach or suggest such an element, the combination of those references must fail to teach or suggest such an element.

Therefore, the combination of Teng, the APA and Wu fails to teach or suggest each and every element of independent Claims 1, 7, 12, 17, 21 and 27, and as such, it fails to establish a *prima facie* case of obviousness with respect to independent Claims 1, 7, 12, 17, 21 and 27, and any claims dependent therefrom.

In view of the foregoing amendments and remarks, the cited references do not support the Examiner's rejection of Claim 32 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner withdraw the rejection.

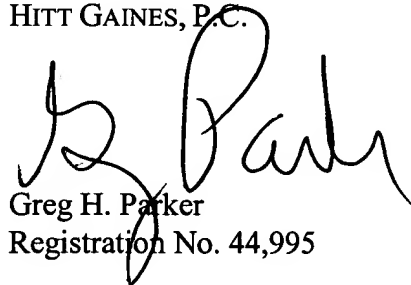
VI. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-32.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

HITT GAINES, P.C.

A handwritten signature in black ink, appearing to read "G. Parker", is written over the printed name and registration number.

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